Navy Environmental Quality Fact Sheet

Do you dispose of waste solvent from painting or cleaning operations?

Would you like to improve this process in the following areas?

- ***Meeting environmental compliance regulations*** -- Reduce hazardous waste disposal and air emissions. Regulatory areas include RCRA and NAAQS.
- ***Improving workers' safety and health*** -- No change from current operations.
- ***Increasing productivity*** -- No change from current operations.
- ***Saving money*** -- Decrease solvent purchases and solvent disposal costs.

Solvent Distillation Unit

Traditionally, hazardous solvents have been used in a variety of parts cleaning applications to remove paint, oil, grease, and dirt. Use of hazardous solvents can have adverse environmental effects including hazardous waste generation and air emissions. Solvent distillation, as a means of recycling, is a viable alternative to the single use and disposal of solvents. It is environmentally benign and reduces the amount of solvent purchased and disposed. Solvent distillation is well suited for processing waste solvents with excessive contamination. The distillation unit heats the waste solvent to its boiling point, causing the solvent to evaporate. The solvent vapors are then condensed in a separate container. The remaining contaminants in the process chamber are disposed. Disposable vessel liners can be used to provide simple collection and disposal of still bottoms. These units are being used successfully at Navy installations such as NAS North Island, SUBASE Bangor, and COMNAVBASE Norfolk. ***This equipment is available through the Navy Pollution Prevention Equipment Program (PPEP).***

How can you achieve these improvements?

Use a Solvent Distillation Unit.

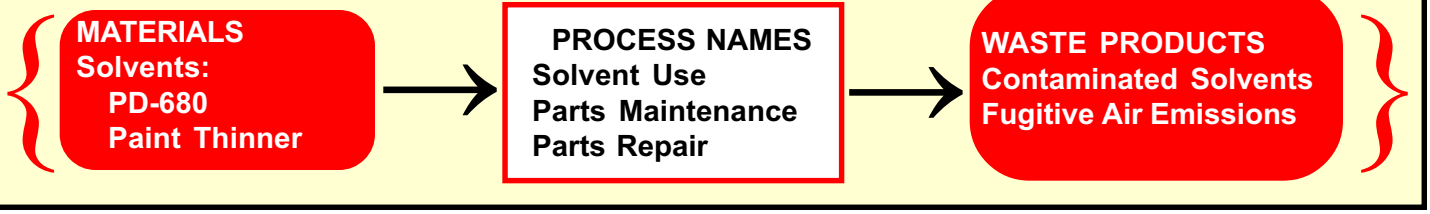
How does this equipment work?

The Solvent Distillation Unit allows solvents to be recycled instead of being used once and then disposed.

How will this equipment save you money?

Solvent purchase and disposal costs will be significantly reduced. The cost to implement varies depending on the size of the unit. A two-gallon unit will cost about $3,800 to implement and it typically pays for itself within a year. For a complete cost analysis refer to the Joint Service P2 Opportunity Handbook Data Sheet 8-4.

Typical Process Flow Diagram



How can this technology eliminate or reduce pollution?

Implementation of this technology will result in the following pollution reductions:

- Reduce Solvent Purchase up to Approximately 80%
- Reduce Disposal of Waste Solvent as Hazardous Waste

Which shops can benefit most from this technology?

This technology can be implemented in shops that use solvents. Typical shops include:

- Automotive Maintenance and Repair
- Aircraft Maintenance and Repair
- Ship Part Maintenance and Repair
- Mechanical Component Maintenance and Repair

Take action: How can you implement this technology?

- **Activity Shop & Work Center Personnel**. Contact your Pollution Prevention Program Manager. The P2 Program Manager can provide more information and conduct a more detailed analysis, and may be able to provide this equipment at no cost to a Shop or Work Center.
- **Activity Pollution Prevention Manager**. Request this equipment through the Navy P2 Equipment Program (PPEP). Depending on the application, the Environmental Program Requirements Cookbook may contain project submission information for annual budget requests sent to your claimant.
- **For Additional Technical Information**. More information about this technology can be found on Joint Service P2 Opportunity Handbook Data Sheet 8-4 (Web: http://www.nfesc.navy.mil/enviro/index.html) or in the PPEP Book (Web: http://www.lakehurst.navy.mil/p2/index.htm).

Achieving Environmental Compliance Through Pollution Prevention

Every day the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by implementing pollution prevention technologies and methods to reduce compliance requirements. This Fact Sheet is one in a series designed to encourage activities to implement pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

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